April 21, 1999

MEMORANDUM

SUBJECT: Future Plans for the Air Facility Subsystem (AFS) of the Aerometric Information Retrieval System (AIRS)

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TO: AFS User Community

The purpose of this memorandum is to update you on our future plan to migrate the emissions component of the Air Facility Subsystem (AFS), Aerometric Information Retrieval System (AIRS), to the National Emissions Trends (NET) database, and our current plan to provide continued support for the compliance component of AFS.

Background

Our April 23, 1998 memorandum, "Plans for Re-engineering AFS," discussed AFS re-engineering options and requested feedback. The memorandum and its contents were presented and discussed at last year's AIRS Conference in San Francisco (April 1998). The memorandum stated that, in the future, the Office of Air Quality Planning and Standards (OAQPS) plans to phase out the emissions component of AFS and replace it with the NET database.

The memorandum also presented plans by the Office of Enforcement and Compliance Assurance (OECA) to embark on a new approach to manage compliance and enforcement data to improve the EPA's ability to integrate data and to make data sharing with States easier. The memorandum also shared OECA's strategy to take a multimedia view of national compliance and enforcement data and to reach out to work with other program offices' modernization activities to establish cross-media data standards to help data quality and consistency.

Emissions Data

Within OAQPS, the Information Management Group (IMG), which manages AIRS, and the Emission Factor and Inventory Group (EFIG), which manages the NET database system, have agreed that the NET database is the best tool for meeting OAQPS' emissions data needs. In this light, OAQPS will be closing out the emissions component of AFS and relying on the NET to meet its future data management needs, such as tracking emission trends and modeling. Many States chose to submit their 1996 inventory in the new NET format. **The scheduled date for closing out the emissions component of AFS is September 30, 2000**.

The NET Database

In the future, the NET will be OAQPS' single repository of emissions data. Unlike the AFS, which only stores point source data, the NET will store point, area, mobile, and biogenic data for both criteria and toxic emissions. The NET blends State/local-supplied data with the EPA-derived data to form a comprehensive national inventory for each emission year. The NET is based on the Emission Inventory Improvement Process data model that was developed by representatives of State and local agencies and the EPA. The NET is being developed using Oracle. Quality Assurance (QA) checks will be applied to data prior to importing into the NET. Questionable data will be flagged to State and local air agencies for review prior to importing. Data processing and QA priorities for the NET are driven by air program needs such as regional air quality modeling. In addition to the EPA's Reinventing Environmental Information (REI) requirements, the NET will support the new Process Classification Codes (PCC) which will replace the current Source Classification Codes. The public will have access to summary reports via the Internet.

Our April 23, 1998 memorandum stated that we envisioned the re-engineered emissions database as having an "EPA-side" and a "State-side." At that time, we proposed that the "State-side" would store the emissions data as submitted by State and local agencies to the OAQPS. The "EPA-side" would be a combination of data submitted by States and supplemental data from other sources to produce the NET inventory. Since that memorandum, we have dropped the vision of having a "State-side" component and will instead implement an approach that labels the data as to the origin of the submitting agency (State or EPA).

The NET will accept data from State/local agencies in multiple transfer formats, such as the new NET input format and, at least for the foreseeable future, the traditional AFS batch format for point source data. Two converters are being developed in support of the AFS data. One converter is being written that will enable EFIG to extract point source data residing in AFS and convert that data to the NET format for loading into the NET database. The other converter will be written to enable State/local agencies to convert AFS batch transactions that are generated by their agency converters to the NET format.

As mentioned, we envision the AFS batch format will be supported for the foreseeable future (probably 2-3 years). We do not plan to make major revisions to the AFS batch format [e.g., such as would be required to implement the new North American Industrial Classification System (NAICS) codes or the new PCC]. As such, State and local agencies should be planning to modify their agency converters to generate the new NET format rather than the existing AFS. The new NET database supports many new data elements (such as the NAICS, and PCC codes) which are not supported in AFS.

The NET is being designed to meet the EPA's REI requirements. For example, the REI initiative will require the EPA program offices to implement the EPA's new data standards for facility identification, chemicals, location (latitude and longitude), and the revised approach for Standard Industrial Classification codes (i.e., the 6-digit NAICS). Data reporting will be by electronic transfer. The NET will move into full implementation later this year.

Impact to Direct Users of AFS Emissions Data

The new NET database is being designed to store emissions data provided by agencies but will not contain some of the features in the current AFS (e.g., emissions calculations) that were principally included for State and local agency use. Given this limited functionality, it is unlikely that the new system will meet the needs of those direct user agencies.

The September 30, 2000 date for closing out the emissions component of AFS was chosen for several reasons. The new NET database will be fully operational. The two AFS converters will be available. We believe September 30, 2000 should allow enough time for the direct emissions user agencies to adopt to a new emissions system and convert their AFS data to their new system. However, we will work on a case-by-case basis with these agencies that may not be able to meet this date.

In preparation for September 30, 2000, the current AFS direct emissions users should be exploring other system options to take the place of AFS. We have, however, been working with these users in a number of ways. One approach has been to obtain special Section 105 funding to provide the funds needed for direct users to begin to transition to a new system. Matching funds of $27,700 have been granted to each direct emissions agency this fiscal year (FY). Another $27,700 is anticipated in FY-2000. Some possible uses of this potential funding could be to purchase a commercial (vendor-supplied) system, or customize an existing State/local data system for use by a group of agencies.

We have also provided a clearinghouse of information on available data systems that would be feasible substitutes for agency use. The clearinghouse can be found at the following web site: http://www.epa.gov/ttn/airs/afs/reeng/clearhse.html. Several of these systems will be demonstrated at the upcoming AIRS Conference to be held in St. Louis, Missouri, April 26-30, 1999.

Compliance and Enforcement Data

The OECA will design the General Enforcement Management System (GEMS) to be a consolidated enforcement and compliance data management system that will support the core information needs of the EPA's National Enforcement and Compliance Assurance program. Utilizing business process re-engineering techniques and system life cycle management processes for its development, this system will include such basic components as tracking of facility inspections, violations and enforcement actions, as well as addressing more complex needs for compliance assistance tracking, multi-media planning, targeting and evaluation. The GEMS will, to the maximum extent possible, provide a consistent framework, process and structure for how the Agency collects and tracks compliance and enforcement information. The initial release of GEMS is scheduled to be complete in FY-2002. This time frame is dependent on funding in FY-2000 and FY-2001 being available to complete the Detailed Design and Programming.

In FY-98, OECA's Office of Compliance initiated the concept development phase of GEMS. During the concept phase, OECA worked with Headquarters and Regional representatives to explore basic types of information and functionality that should be supported in the future. In addition to those initial conceptual discussions, OECA held preliminary discussions on the GEMS concept with Regional and State stakeholders.

As you may know, OECA is currently embarking on the second phase of the modernization effort--the "General Design Phase"--which focuses on development of the specific system requirements that are needed to support the national enforcement and compliance program. The core focus of this phase is a series of needs assessment workshops in key program business areas (compliance monitoring/compliance assistance, enforcement programs, program management) that will be conducted throughout FY-99 with Headquarters, Regional, and State representatives.

A number of delegated agencies, as well as some EPA Regions, use AIRS as their own local air compliance data management tool. For these "direct users," AIRS provides the dual functions of local tracking plus national reporting. We appreciate these "direct users" for their involvement in the system and for the high data quality which they have historically provided. The OECA maintains a goal of providing continuing support for AIRS "direct users" as we progress toward GEMS implementation, and we are interested in your ideas and approaches concerning achieving this goal.

Title V Permit Data

The Title V permit program is currently supported by AFS, but not by the NET database. So that OAQPS can continue to track Title V permits, a new web-based system is being considered. This system would support the EPA Regional and State users to enter permit

tracking information via a web form. The permit data entered via the web form would be stored in a database on the back end. This database would be able to support web-based queries and reports.

Modernization Discussions at AIRS Conference

We look forward to discussing each of these modernization efforts, in more detail at the upcoming AIRS Conference in St. Louis. We would be interested in any comments you may have on these plans. Please feel free to send your comments to Ed Lillis [lillis.ed@epa.gov, (919) 541-5586]; Chuck Isbell [isbell.chuck@epa.gov, (919)541-5448]; David Meredith [meredith.david@epa.gov, (202) 564-4152]; or Mark Antell [antell.mark@epa.gov, (202) 564-5003].

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